COMPUTING Curriculum Intent

Children at Woodside will be able to: select appropriate equipment and software for tasks; design, write and debug programs; safely and responsibly use appropriate websites and internet applications; and locate, manipulate and interpret information and data. They will know how to select and use a range of equipment and software competently to achieve specific goals. These skills will provide the technological foundations for the ever advancing world.

COMPUTING National Curriculum

EYFS - ELG	**Understanding the World – Technology** Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.
Key Stage 1	Pupils should be taught to: • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • create and debug simple programs • use logical reasoning to predict the behaviour of simple programs • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.
Key Stage 2	Pupils should be taught to: • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Using Technology	**Understanding the World: Technology** DM 30-50 months Knows how to operate simple equipment, e.g. turns on CD player and uses remote control.	To log in to a computer with a username and password. To use a use a computer keyboard and a mouse. To understand that how I interact with people on-line can impact them.	To start to select appropriate software and devices. To work with files that are open. To report unacceptable behaviour on-line.	To begin to become familiar with a range of electronic devices. To improve the speed and accuracy of my typing. To open, edit and save files.	To select from a wider range of applications to complete tasks. To use technical vocabulary when working with computers and technology.	To discern appropriate applications and tools for tasks and justify my decisions. To understand further the impact of anti-social and unacceptable behaviour on-line. To practise some mathematical skills.	To select the most appropriate software and applications for tasks. To discern the most appropriate method for evaluating data and information. To practise various mathematical skills. To type with accuracy and speed.
Using the Internet	Shows an interest in technological toys or real objects such as cameras or mobile phones. Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. Knows that information can be retrieved from computers.	To use a web browser to access websites. To understand that the internet is a made of connected computers. To understand how to access the internet safely.	To use search engines to find relevant information and start to understand the copyright of materials. To start to understand that not everything on the internet is true or correct. To read non-fiction and extract information from sources such as web pages.	To use search engines to find relevant information and refine my searches further. To understand that it means for materials to be copyrighted. To understand that not everything on the internet is true or correct.	To use search engines to find relevant information and refine my searches further. To start to understand that information that I use needs to be appropriate to the audience. To read non-fiction information from various sources.	To read non-fiction and extract information from sources such as web pages, reference books or CD-ROMs. To understand that information that I use needs to be appropriate to the audience. To recognise that anyone can author content on the internet.
Communicating and Collaborating Online	DM 40-60 months Completes a simple program on a computer. Uses ICT hardware to interact with age-appropriate computer software.	To understand that users can work together on computers.	To understand that I should not edit or change files belonging to other users. To start to work with web 2.0 tools.	To understand how email works. To understand that web-based tools can allow multiple people to contribute to shared documents. To work with other web 2.0 tools.	To work with others, listening to their ideas and expertise and treating these with respect. To understand that web-based tools can allow multiple people to contribute to shared documents.	To be aware of the security of their own and other people's information in electronic form. To work with numerous web 2.0 tools. To learn about ways of thinking and finding out about and communicating ideas	To acknowledge the ownership of ideas and recognise the value of information held on IT systems. To understand the importance of the security of my and other's work. To recognise the strengths and limitations of ICT and its users.
Creating and Publishing	ELG Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	To start to use word processing software.	To improve my word processing skills. To understand that printed content cannot be changed.	To use word processing and presentation software. To understand that the internet is made up of websites. To understand that printed content cannot be changed and provides a reference version. To consider my own use of ICT.	To use word processing, presentation and desk top publishing software. To explore different coding tools that are used to produce websites. To be creative and persistent when starting to assemble information and content. To think about the origin of information. To critically assess my own use of ICT.	To select and use word processing, presentation and desk top publishing software. To create a website. To be creative and persistent when assembling information and content. To think about the origin and quality of information. To critically assess other's use of ICT. To start to think about knowledge and understanding of important ideas, processes and skills and relate these to everyday experiences.	To create web content using various tools. To be creating and consistent when assembling information and content from numerous sources. To critically assess the origin and quality of information and content. To critically assess other's use of ICT and feed it back to them. To develop knowledge and understanding of important ideas, processes and skills and relate these to everyday experiences.
Digital Media		To understand that devices can be used to capture aspects of the world.	To take photographs.	To create basic stop motion animations.	To take and edit photographs. To use technology to create and manipulate images.	To use technology to record and edit videos.	To use a range of technologies to record and sequence sound.
Using Data		To understand that computers can store and manipulate numbers.	To enter data and numbers into computers.	To understand the basic structure of a database. To use pre-made databases to generate graphs and charts	To start to develop the skills of collecting first hand data, analysing and evaluating it and making inferences or predictions.	To continue to develop the skills of collecting first hand data, analysing and evaluating it, making inferences or predictions and testing them, drawing and presenting conclusions, and use all these in their work with ICT. To start to work with spreadsheets.	To plan, create and use databases to answer questions by constructing queries. To design and create my own spreadsheets.
Programming and Control		To understand that computers have to be programmed to work.	To program toys to perform actions. To have started to develop an understanding of how computers and technologies work	To start to understand that algorithms are sequences of instructions. To start to write simple programs. To start to understand programming languages. To start to understand that mathematical skills are helpful when programming. To develop further my understanding of how computers and technologies work.	To write my own algorithms. To write more complex programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. To start to use sequence, selection and repetition in programs; work with variables and various forms of input and output. To work with programming languages.	To write and critically assess the quality of algorithms. To use sequence, selection and repetition in programs; work with variables and various forms of input and output. To work with a variety of programming languages. To further develop my mathematical skills when programming.	To critically assess the quality of algorithms written by others. To use sequence, selection and repetition in complex programs; work with variables and various forms of input and output. To select the appropriate programming language for a task. I understand how various computers and technologies work.
Modelling and Simulation		To start to understand that computers can be used to duplicate the world.	T understand that aspects of the real world can be represented in computers.	To understand that various aspects of the real word can be represented in computers.	To start to understand that ICT allows for situations to be modelled, or those which it would be impractical to try out in real life. I understand that software can be used to model objects.	I understand that ICT allows for situations to be modelled, or those which it would be impractical to try out in real life. To start to investigate the effect of changing variables in simulations. To start to use software to model objects.	To investigate the effect of changing variables in various simulations. To use software to model 3D objects made up of cuboids.